

D6101-003

Work Order ID 164451***164451***

Page 1

Wednesday, July 19, 2017 2:35:31 AM

Item ID: D2665-1 **Accept** ***N9000040100*** **Setup Start *NS1***
Revision ID: **Stop *NS2***
Item Name: Saddle, LH Fwd Aft Out
Start Date: 7/27/2017 **Start Qty:** 4.00 ***4*** **Cust Item ID:**
Required Date: 8/11/2017 **Req'd Qty:** 4.00 ***4*** **Customer:**
Reference:

Approvals: **Process Plan:** DAS 21 9-89 **Date:** 7/20/17 **Tooling:** **Date:**
QC: **Date:** **SPC (Y/N):** **Date:** **Run Start *NR1***
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2665	Rev D

100	HAAS CNC VERTICAL MACHINING #1	2.40							
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100

HAAS 1

HAAS CNC vertical machine #1

Memo

Program batch number.1- Inspect part number and batch number are programmed correctly.2- Machine Step No 1 of Folio and visually inspect as per attached Dimension Sheet 3- Machine Step No 2 of Folio and visually inspect as per attached Dimension Sheet

110	CONVENTIONAL MILLING MACHINE	0.00							
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110

Mill Conv

Conventional Milling Machine

Memo

Machine Keyway and inspect per attached dimension sheet

120	QC2- Inspect parts off machine FAI/FAIB	0.00							
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120

QC

Quality Control

Memo

DAS

44

9-89

SBL 17/09/03

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : ☐							

Work Order ID 164451***164451***

Page 2

Wednesday, July 19, 2017 2:35:31 AM

Item ID: D2665-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Saddle, LH Fwd Aft Out
Start Date: 7/27/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 8/11/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.08				4			217-9.5
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.31				(4)			2017-09-06 JSL
150 *150* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum Memo START TIME: 3:15 OVEN TEMPERATURE: FINISH TIME: 3:45	0.00 0.56				4			1709-6 JSL

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 164451

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164451

Page 3

Item ID: D2665-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Saddle, LH Fwd Aft Out
Start Date: 7/27/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 8/11/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00							
160									
QC	Memo	0.04							DAS 9 9-89
Quality Control									
170	Identify as per dwg & Stock Location: ST402	0.00							
170									
Packaging	Memo	0.04							DAS 6 9-89
Packaging									SEP 07 2017
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.40							17/9/8
Quality Control									DAS 21 9-89

SEP 07 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Picklist Print

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Page 1

Work Order ID: 164451

164451

Parent Item: D2665-1

D2665-1

Parent Item Name: Saddle, LH Fwd Aft Out

Start Date: 7/27/2017

Required Date: 8/11/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP: C00.11.01Removed P/O for Powder Coat - in house processEC
IPP Rev:D As per Rev D 07-03-19 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D6101-003

Manufactured

No

100

Each

27.0000

1

4

D6101-003

Saddle Billet, 7075

Location

Loc Qty

Loc Code

MAT040

20

161598

20

MAT046

7

162144

7

164 404

7

4

17/08/30 SBL

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER : _____							
Misidentified	☐	Past Due								

DART AEROSPACE LTD				Work Order: 16445	
Description: 206 Saddle, Outboard, Left side				Part Number: D2665-1	
Inspection Dwg: D2665 Rev: D DSK: Rev:				Page 1 of 1	

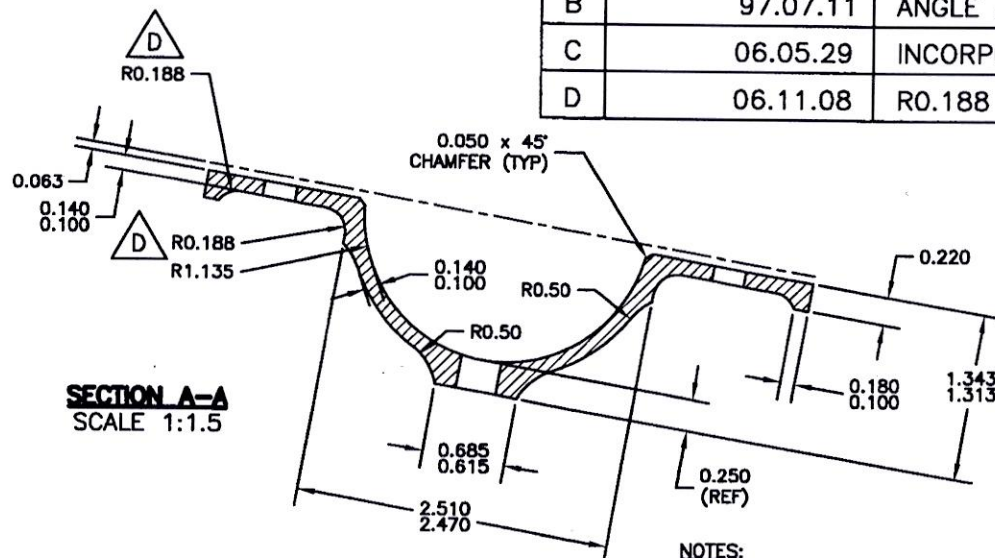
FIRST ARTICLE INSPECTION DIMENSION SHEET

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	0.100	0.140		.115	.119	.119	.118	
B	0.100	0.140		.120	.120	.120	.120	
C	1.125	1.145		1.136	1.140	1.137	1.137	
D	0.615	0.685		.655	.655	.655	.655	
E	0.240	0.260		.252	.249	.250	.250	
F	1.313	1.343		1.322	1.325	1.325	1.326	
G	0.210	0.230		.221	.221	.222	.222	
H	0.100	0.180		.130	.130	.130	.130	
I	2.470	2.510		2.490	2.492	2.494	2.492	
J	1.565	1.585		1.577	1.575	1.576	1.576	
K	0.235	0.240		.238	.238	.238	.238	
L	0.100	0.120		.118	.118	.118	.117	
M	0.990	1.010		1.005	1.005	1.004	1.004	
N	0.510	0.515		.511	.511	.511	.511	
O	5.990	6.010		5.999	6.000	5.999	6.000	
P	1.245	1.255		1.250	1.250	1.250	1.250	
Q	2.495	2.505		2.500	2.500	2.500	2.500	
R	0.312	0.318		.314	.314	.314	.314	
S	0.315	0.322		.316	.316	.316	.316	
T	2.495	2.505		2.500	2.500	2.500	2.500	
U	1.357	1.367		1.362	1.362	1.362	1.362	
V	0.787	0.807		.796	.799	.800	.800	
W	0.540	0.560		.550	.548	.548	.548	
X	1.674	1.684		1.679	1.679	1.679	1.679	
Y	0.256	0.262		.258	.259	.259	.259	
Z	0.912	0.932		.921	.920	.916	.916	
AA	0.490	0.510		.499	.497	.496	.496	
AB	0.178	0.198		.188	.188	.188	.188	
AC								
AD								
AE								
Accept/Reject								

Measured by: SBL 44	Date: 17/09/2
Audited by: JL 9-89	Date: 17-9-5
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	99.04.19	Incorporated DSI 9095, DSI 9102 & DSI 9122 Rev. A	RF	
C	99.11.10	Added Dim. R-T	RF	
D	02.12.12	Reformat; Added Dim. U-W & DT8683, DT8686	KJ/RF	
E	06.07.05	Revised per drawing revision C	KJ/JLM	
F	07.03.21	Revised per drawing revision D	KJ/JLM	
G	12.03.08	Dimension R and Y revised	KJ	M

DESIGN 		DRAWN BY 		DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED 		APPROVED 		DRAWING NO. REV. D D2665 SHEET 1 OF 1	
DATE 06.11.08		TITLE SCALE SADDLE FWD OUTSIDE HIGH 1:3			
A	97.03.25	NEW ISSUE			
B	97.07.11	ANGLE AND NOTES ADDED			
C	06.05.29	INCORPORATE DEO 9122, 9102, 9095			
D	06.11.08	R0.188 WAS R0.30; Ø0.316 WAS Ø0.313			

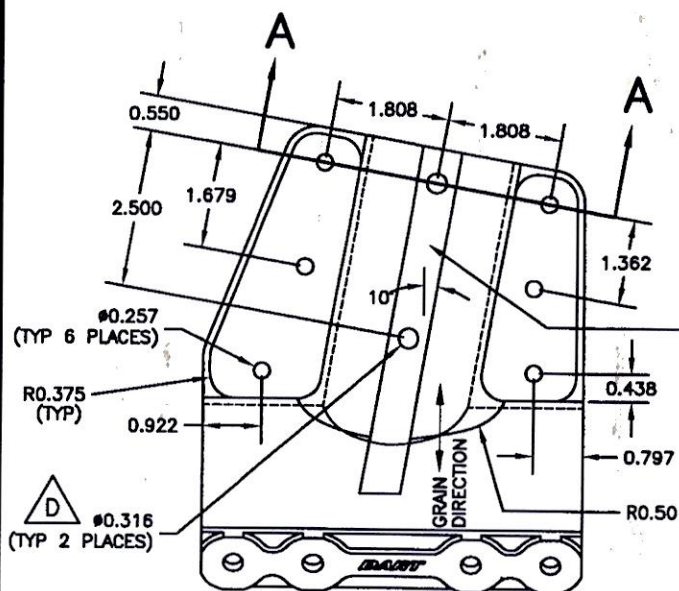


RELEASE

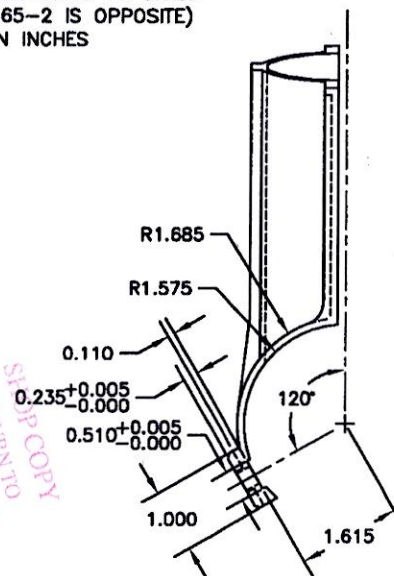
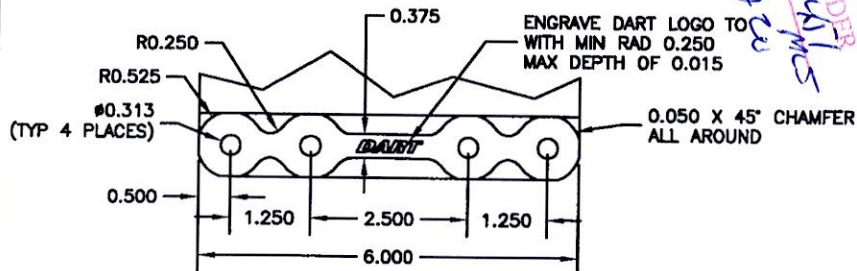
07.02.17

NOTES:

- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)
(MAKE FROM D6101-003 SADDLE BILLET, 7075)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 5) D2665-1 SHOWN (D2665-2 IS OPPOSITE)
- 6) ALL DIMENSIONS ARE IN INCHES



ENGRAVE PART
NUMBER AND
BATCH NUMBER
- TO MAX DEPTH
OF 0.010 WITH
MIN RADIUS
OF 0.010



D2665-1 SADDLE FWD OUTSIDE HIGH

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